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Wave 2 Surge Plan & Checklist

Renal Replacement Therapy (RRT) in Critical Care

The Renal Replacement Therapy in Critical Care Surge Plan is one of three specialised services surge plans that have been developed in discussion with NHS England and NHS Improvement's national clinical and commissioning leads. The plans aim to aid local and regional discussions and to act as a brief guide and checklist in support of planning for a potential rise in hospitalisations due to COVID-19 infection.

The three plans – covering Adult Critical Care, Respiratory Extracorporeal Membrane Oxygenation (ECMO) and Renal Replacement Therapy in Critical Care - have been developed for those specialised services which would provide direct care to a rapidly rising number of patients within the adult critical care setting, in a surge scenario.

Surge Plan:		Renal Replacement Therapy (RRT, Haemofiltration)	
National Leads:		Richard Fluck (Clinical)	Ian Wren (Commissioning)
Summary of Approach to Surge	<ul style="list-style-type: none"> • During wave 1 of COVID-19, the number of patients in critical care needing renal replacement therapy (RRT) averaged over 700 patients per day nationally (peaking at 970), representing a 600% increase in haemofiltration patient numbers, an 800% increase in fluids and a 2,000% increase in filter sets (compared to pre-COVID figures). • For wave 2, a Severe COVID Response Cell is providing national leadership and co-ordination of linked critical care workstreams. • A stockpile of haemofiltration sets and fluids has been created, as part of national arrangements (ventilation and oxygen tower). • Consumables are monitored through a national mechanism. A move to control (from monitoring) of consumables and fluid can be actioned if required. Triggers for renal incident escalation will be confirmed. • A national RRT specification annex has been developed, setting out a 3 tier model as well as operational standards to be met by commissioned providers. • NICE clinical guidelines are being refined to ensure care is provided in line with clinical management protocols. 		
Key Considerations	<ul style="list-style-type: none"> • Surge demand exceeds stockpile. Mitigation by ensuring regional stock requests proportionately reflect demand, supplemented by mutual aid. • Availability of only one critical RRT modality (i.e. haemofiltration). Mitigation through multimodality approach (i.e. haemodialysis (HD), peritoneal dialysis (PD) and treat and transfer) using collaboration between renal and critical care services. 		
Supporting Data	<ul style="list-style-type: none"> • Critical care minimum data set including daily record of RRT use within individual critical care units. • Supplier stock levels. • Provider ordering. • Monthly stocktake by providers. 		
Inequalities Considerations	<p>People from Black, Asian and minority ethnic (BAME) communities represented 25.5% of admissions due to COVID disease, compared to 8.6% of pre-COVID viral pneumonia admissions. The incidence in admission for men is normally slightly higher than for women into adult critical care, but during wave 1, 70% of admissions were for men. During wave 1 of COVID-19, the most severely affected patients were those over 60 and those with underlying co-morbidities.</p>		

Mechanism for Escalation of Issues <i>(Where Local Resolution Not Possible)</i>	Point of contact: england.spocrenal@nhs.net ; england.ncpt@nhs.net <ul style="list-style-type: none"> • Weekly Regional Critical Care/Renal Network meetings, Renal Incident Team (RIT) and manufacturer meetings. • Weekly apportionment meetings by Renal Incident Team • Exception reporting via Renal Single Point of Contact (SPOC) mailbox, monitored by Renal Incident Team (RIT). 	
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ACTION CHECKLIST

Providers:		
Compliance with the RRT annex to critical care service specification.		√
Staff training to increase haemodialysis competencies within teams.		√
Joint working with renal departments in same or local trusts as per tier 1-3 RRT incident planning.		√
Produce orders for consumables as per the latest standard operating procedure (SOP), typically weekly to bi-weekly requests. Communicate to regional incident teams and manufacturers as per latest SOP.		√
Urgently place orders for reverse osmosis (RO) (via NHS Supply Chain Framework) as per regional incident plan, noting 6-8 week lead time and 3-4 week installation timeline.		√
Daily completion of critical care minimum data set.		√
Stocktakes of RRT consumables and fluids as per latest SOP.		√
Networks:		
Review critical care minimum data set information to assess local demand and capacity.		√
Ensure compliance with mutual aid concepts by all units in the network.		√
Escalate issues with demand and capacity via regional incident control processes.		√
Regions:		
Review RRT annex, formally designating tier 1 to 3 renal units as part of implementation of clinical model.		√
Review activity information and stock apportionment and allocate stock according to local need.		√
Support mutual aid between units, where required, to mitigate risks.		√
Monitor 'treat and transfer' processes between units to ensure all patients have a bed to provide RRT (as per critical care specification addendum).		√
Review data from critical care minimum data set to monitor demand in the system. Escalate as per local policies.		√
National:		
RIT escalate mitigating actions according to level of demand for consumables. Issue updates to SOPs to communicate level of response by the system.		√
Meet with manufacturers to determine resilience of supply lines.		√
Resolve all concerns escalated to Renal SPOC in relation to supply and demand.		√
Disseminate all information on stock levels and apportionment quantities to regions for discussion with local providers.		√
Monitor national stockpile.		√
Explore availability of any stock outside of usual supply lines.		√
Work with the National Institute for Health and Care Excellence (NICE) on reviewing and implementing urgent guidelines.		√